

# Intelligent Textiles®

for Medicine



## “The Pacemaker for Micro-Circulation”

### Indications

---

- Pain Relief
- Increase Micro-Circulation
- Increase Range of Motion
- Retard Disuse Atrophy



Silver-Thera™  
Knee Sleeve



# Intelligent Textiles®

for Medicine



## “The Pacemaker for Micro-Circulation”

### Micro-Z-Mini™ Features

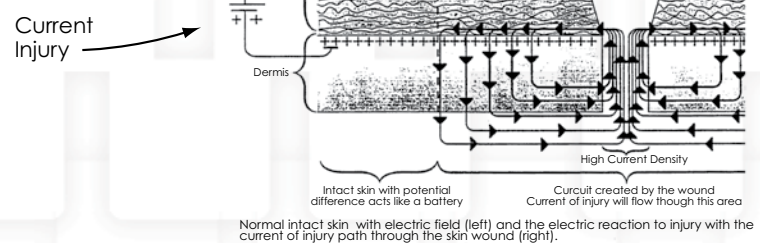
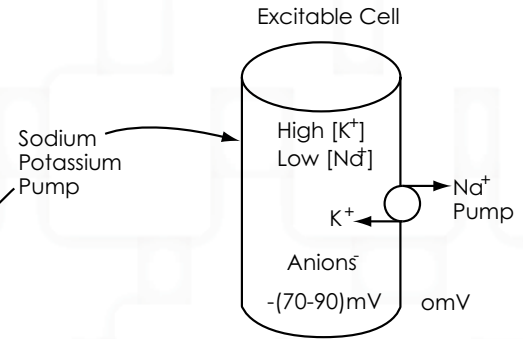
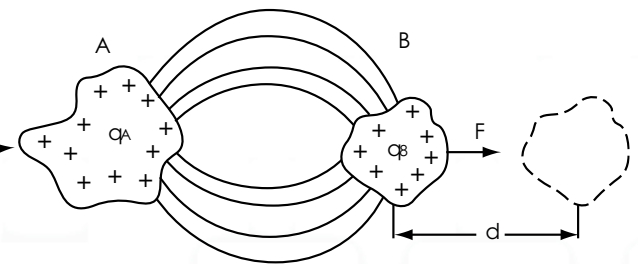
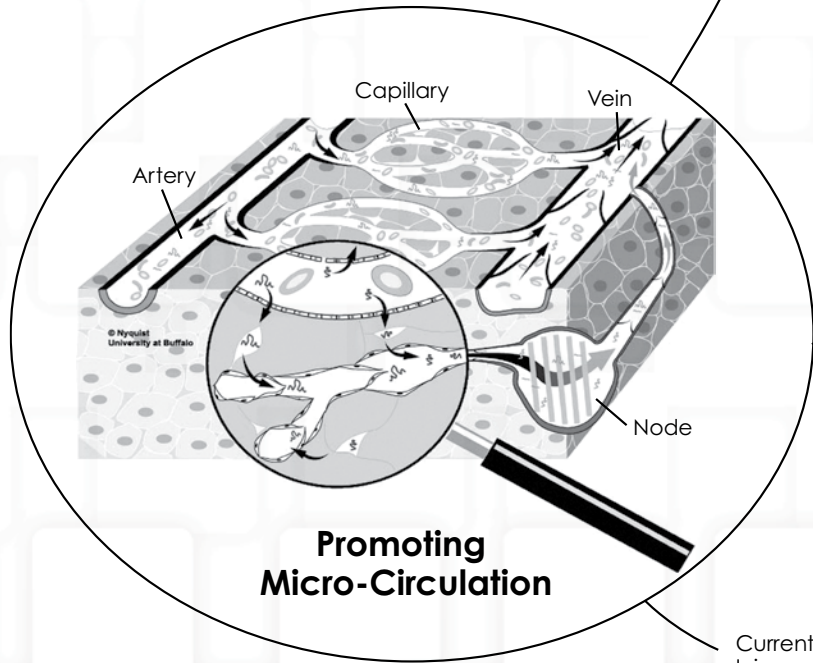
- Small and lightweight
- Programmable & Data collection via a PC Electronic Medical Record
- Copyrighted software

### “Therapy while sleeping”



The Micro-Z Mini™ with our Intelligent Textiles® uses our patented form fitting conductive garments, offers a unique combination of support – enabling patients to have therapy where and when they need it – whether it's at work, at play, or even while sleeping! In the past, electrotherapy has been difficult to administer because of a lack of precision in where to apply electrodes and loss of conductivity over time. The Intelligent Textiles® system with Micro-Z Mini™ delivers electrotherapy uniformly and consistently over the entire body part, providing deep-penetrating DC electric energy to the treatment area. Research supports that the micro-amperage delivered falls precisely within the narrow “biological waveband” of the body's electromagnetic energy. Instead of merely masking pain, this micro-amperage electrochemically fuels the body's natural healing mechanism, improving cell function, reducing edema, while increasing microcirculation aiding recovery from painful injuries or chronic disease. Using the copyrighted Micro-Z Mini™ software, patients select a treatment protocol and go about their business. Patient compliance and eagerness for treatment is quite high since the micro-stimulation delivered Micro-Z Mini™ is dosed below sensory. The Intelligent Textiles for Medicine® are soft, comfortable to wear and washable. The Intelligent Textiles® are available in several forms of gloves, sleeves, stockings and with orthopedic bracing.

# Science behind our Technology



## Microamperage Current Promotes Soft Tissue Healing

- Cheng et al. (1982) cited direct currents at 500 uA (microamp) resulted in a 500% increase in ATP. The same ranges of stimulus intensity greatly enhanced amino acid incorporation (member transport). With currents higher than 1000 uA, a significant drop in ATP production resulted. Protein synthesis was also seen to be greatly increased by microamperage electrical current.
- Becker et al. (1967) stated that externally applied electrical currents stimulate biologic homeostasis, which activates feedback mechanisms, and therefore resulted in tissue repair and replacement.

## Evidence Based Medicine

- 50 years of clinical studies > 75 peer review medical journal research.\* A meta analysis of 95%. (now available for in-home use)
- The center for Medicare and Medicaid services (CMS) on July 25, 2002, stated, "The use of electrical stimulation will be covered as an adjunctive therapy only after there are no measurable signs of healing for at least 30 days of treatment with standard wound therapy and must be used in addition to standard wound care."
- U.S. Department of Health and Human Services Clinical Practical Guidelines state: "At this time, electrotherapy is the only adjunctive therapy with sufficient supporting evidence to warrant recommendation by the panel."
- 4 Published Prizm Studies on Wound Healing, Pain Relief, and Perfusion.
- Proof of clinical evidence rating of "A" by EPUAP and NPUAP in 2009.

## Therapy While Sleeping...

The human body goes into a natural healing cycle when in a sleeping state.

- 70% of growth hormones are produced during sleep.
- Fibroblast cells are more active during sleep.
- Micro-Z Mini™ promotes microcirculation while enhancing the body's own healing mechanism.

\* References and clinical studies provided upon request.

## Case Report



## Electro-Mesh™



## Silver-Thera™



### Precautions:

- Clinician to determine protocols
- When there is a tendency to hemorrhage
- Over the menstruating uterus
- Specifications subject to change without notice

### Contraindications:

- Patients with cardiac demand pacemakers
- Should not be used on cancer patients

### Warnings:

- Keep out of reach of children
- Safety has not been established for use during pregnancy
- Persons with suspected or diagnosed epilepsy
- Not to stimulate over the carotid sinus nerves

### Caution:

- Federal Law restricts this device for sale by or on the order of a licensed physician or any other practitioner licensed by the law of the state in which s/he practices to use or order the use of this device.

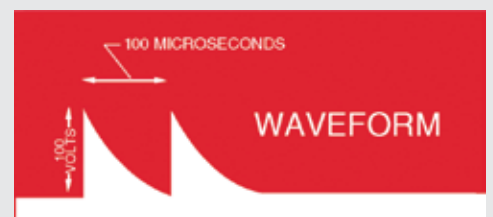
### Micro-Z Mini™ Specifications:

- One AAA battery
- Treatment time 15 minutes up to 24 hours
- Pulse rate 1-120 pps in 5v increments
- Programmable
- Polarity - positive or negative
- Intensity amplitude 0-100 volts
- Wave form: pulsed galvanic monophasic exponential spike with a fixed interpulse interval of 100 microseconds
- High voltage, low-amperage pulsed galvanic stimulation
- Dimensions 2" x 2" x .5"
- Unit weight approximately 2 oz.
- Warranty: 1 year of defective parts and labor

## Stim-Support™



## Accessories



Silver-Thera™ Stocking Products  
Protected by U.S. Patent #5,374,283

Micro-Z Mini™ has copyrighted software

© registered and approved

FDA registered



**PRIZM MEDICAL INC.**

P.O. Box 40  
Oakwood, Georgia 30566, USA  
Phone: 770-622-0933

Email: [contact@prizm-medical.com](mailto:contact@prizm-medical.com)  
[www.prizm-medical.com](http://www.prizm-medical.com)